

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A scrub cleaning device comprising:

two planar scrubbers;

means for supporting the two planar scrubbers so that scrub surfaces of said two planer scrubbers are disposed opposite to each other;

means for rotating the planar scrubbers around a rotation shaft vertical to the planar scrubbers; and

a guide member disposed so that a substrate held between the two opposite scrubbers may be conveyed in the rotation direction of the scrubbers, said guide member having an abutment,

wherein ~~the substrate held between~~ said two opposite scrubbers are able to convey the substrate held between them is conveyed in the scrubber rotation direction by ~~the rotation of the scrubbers~~, and wherein said abutment on said guide member is able to cause the substrate to rotate ~~rotated~~ by a friction force generated by said abutment on said guide member, so that a peripheral speed difference is generated between the substrate rotation and the scrubber so that the substrate is scrubbed/cleaned scrubbed and/or cleaned.

2 (Currently Amended). A scrub cleaning device comprising:

a scrub pad comprising two annular plate scrubbers, and a wheel for supporting the inner peripheral surface of the annular plate scrubber and the surface opposite a scrub surface

so that the scrub surfaces of said two annular plate scrubbers fit each other, and for rotating the scrubber around the center shaft of the annular plate scrubber; and

a guide member disposed opposite to the wheel which is on the inner peripheral surface side of the annular plate scrubber and disposed along the outer periphery of the scrub pad but apart from the scrub pad by a distance, which is substantially the same as the diameter of a disc-shaped substrate so that ~~[[a]]~~ the substrate may be conveyed in the rotation direction of said scrub pad, said guide member having an abutment,

wherein ~~the substrate held between~~ said two opposite scrubbers are able to convey the substrate held between them ~~is conveyed~~ in the rotation direction of the scrubber between the wheel on the inner peripheral surface side of the annular plate scrubber and the guide member by the rotation of the scrub pad, and wherein said abutment on said guide member is able to cause the substrate to rotate ~~rotated~~ by a friction force generated by said abutment on said guide member, so that a peripheral speed difference is generated between the substrate rotation and the scrubber so that the substrate is scrubbed/cleaned scrubbed and/or cleaned.

3 (Currently Amended). A scrub cleaning device comprising:

a substrate cleaning section, provided with means for moving a scrubber while at least a part of a substrate is held between two opposite scrubbers, and conveying the substrate in the movement direction of the scrubber, and ~~friction-generation means~~ a guide member, disposed along the conveyance direction of the substrate, for abutting ~~on~~ the conveyed substrate to generate a friction, for conveying and scrubbing/cleaning the substrate when the substrate is conveyed and rotated by a friction force generated by said abutment of the substrate on the ~~friction-generation means~~ guide member ;

a substrate inlet section for conveying the substrate into said substrate cleaning section; and

a substrate outlet section for conveying the substrate from said substrate cleaning section.

4. (Currently Amended) A scrub cleaning device comprising:

a pair of scrubbers which are rotatably supported by and ~~rotate~~ rotatably driven by a rotation driving means;

a substrate inlet section for conveying a substrate prior to cleaning into a gap between the pair of scrubbers;

a substrate cleaning section for cleaning the substrate transferred from the substrate inlet section with a cleaning liquid supplied from a cleaning liquid supply means;

a substrate outlet section for discharging the cleaned substrate transferred from the substrate cleaning section; and

a conveyance guiding section for conveying the substrate ~~in cooperation with the scrubbers~~ from the substrate inlet section to the substrate cleaning section, and from the substrate cleaning section to the substrate outlet section,

wherein the substrate cleaning section further comprises a resistant force supply means for supplying a resistant force to resist against a force in a conveyance direction provided to the substrate by the scrubbers, so that the substrate is ~~scrubbed/cleaned~~ scrubbed and/or cleaned by a differential peripheral speed between the substrate and the scrubbers generated by the resistant force supply means.

5 (Currently Amended). The scrub cleaning device according to claim 3 or 4, wherein a sensor for confirming the presence/absence of the substrate is disposed on at least one of the substrate cleaning section, the substrate ~~introducing~~ inlet section and the substrate ~~discharging~~ outlet section.

6 (Currently Amended). The scrub cleaning device according to any one of claims 1 to ~~[[5]]~~ 4, further comprising stop means for abutting ~~on~~ the substrate conveyed in the rotation direction of the scrubber to temporarily stop the conveyance of the substrate, and forcibly ~~performing~~ perform the scrub cleaning of the substrate.

7. (Original) The scrub cleaning device according to claim 6, wherein a sensor for confirming the presence/absence of the substrate is disposed at a position where the conveyance of the substrate is temporarily stopped.

8. (Currently Amended) A scrub cleaning device comprising:
a plurality of cleaning stations comprising the constitution according to any one of claims 1 to ~~[[7]]~~ 4; and
a conveyance mechanism for conveying a substrate cleaned in the cleaning station to the next cleaning station in said plurality of cleaning stations.

9. (Original) The scrub cleaning device according to claim 8 wherein said conveyance mechanism comprises a guide member for connecting the scrubbers of said plurality of cleaning stations to one another.

10. (Original) The scrub cleaning device according to claim 8 wherein said conveyance mechanism comprises a guide member for connecting the scrubbers of said plurality of cleaning stations to one another, and a scrub roller for holding the substrate along the guide member from opposite sides and conveying the substrate.

11. (Currently Amended) The scrub cleaning device according to any one of claims 1 to [[10]] 4, further comprising cleaning liquid supply means for supplying a cleaning liquid to at least one of the scrubber and the substrate held between two scrubbers.

12. (Currently Amended) The scrub cleaning device according to any one of claims 1 to [[11]] 4, comprising a vertically disposed device for holding the vertically disposed substrate from opposite sides between two vertically disposed scrubbers.

13. (Currently Amended) The scrub cleaning device according to any one of claims 1 to [[12]] 4 wherein said substrate is a glass substrate for an information recording medium.

14-18. (Canceled)